

REPORT
OF THE
DEPARTMENT OF HEALTH
OF THE
PANAMA CANAL
FOR THE
MONTH OF JULY, 1916

B. C. HOWARD

Lieut. Colonel, Medical Corps, United States Army,
Chief Health Officer, Balboa Heights, Canal Zone

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WASHINGTON
1916

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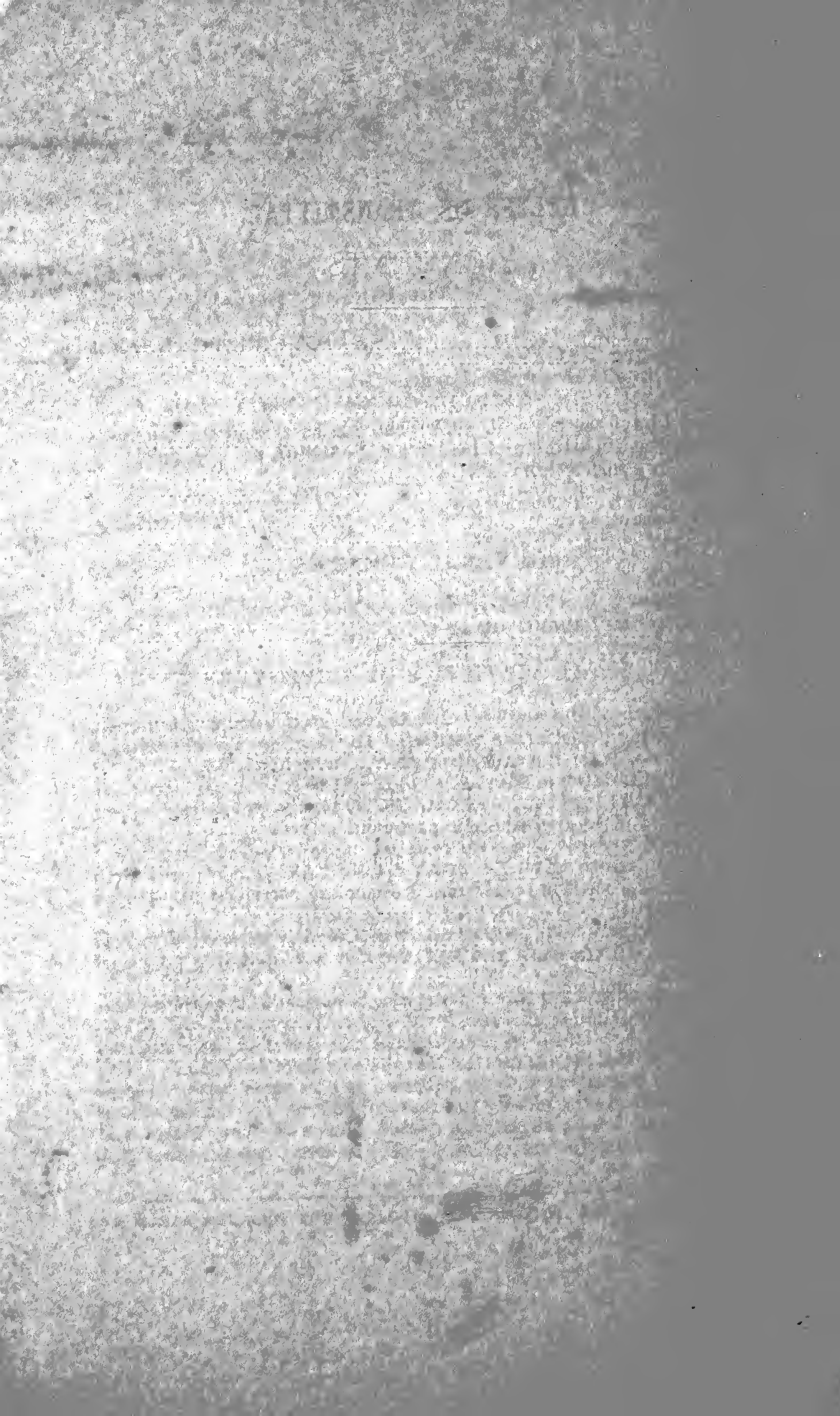
**Lieut. Colonel, Medical Corps, United States Army,
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LETTER OF TRANSMITTAL.

THE PANAMA CANAL, CANAL ZONE,
HEALTH DEPARTMENT,
Balboa Heights, August 11, 1916.

Col. CHESTER HARDING,
*Acting Governor The Panama Canal,
Balboa Heights, Canal Zone.*

SIR: I have the honor to submit the following report of the operations of the department of health for the month of July, 1916.

Very respectfully,

D. C. HOWARD,
Chief Health Officer.

GENERAL REMARKS.

No case of yellow fever, smallpox, or plague originated on or was brought to the Isthmus during the month.

VITAL STATISTICS OF EMPLOYEES.

The health of the employees remained good during the month. The following statistics are based upon the number of names appearing on the rolls for the preceding month, which was 33,787.

The total number of admissions to hospitals and quarters was 738, a rate of 262.11,¹ as compared with 287.99 for the preceding month, and 389.22 for the corresponding month last year.

The total number of deaths from all causes was 12. Of these, 7 died from disease, giving a death rate of 2.49, as compared with 6.48 for the preceding month and 3.34 for the corresponding period of last year.

The constantly noneffective rate was 8.35, as compared with 9.48 for the preceding month and 10.71 for the corresponding period of last year.

The total admission rate for malaria, hospitals and quarters, was 42.26, as compared with 23.61 for the preceding month and 101.39 for July, 1915. The total noneffective rate was 1.41, as compared with 0.70 for last month and 1.94 for the month of July, 1915. The increase in admission rate for malaria, as compared with the preceding month, is due chiefly to a seasonal outbreak occurring among silver employees living in unscreened houses in New Gatun and the Folks River district of Colon. The malaria rate in other districts is low.

¹ All morbidity and mortality rates are computed as equivalent annual per 1,000.

The diseases, next to malaria, causing the highest admission rates to hospital, in the order of their numerical importance, were: Venereal diseases, diseases of the digestive system, nonvenereal diseases of the genito-urinary system, and diseases of the circulatory system. These five classes of diseases caused 57 per cent of all admissions to hospitals. Twenty-seven per cent of all admissions to hospitals were caused by malaria.

There were two admissions for typhoid fever during the month of July, giving an admission rate of 0.71. There were no admissions during the previous month and none in July, 1915.

EFFECTS OF RACE.

The admission rate to hospital and the death rate from disease for black employees, were 91.78 and 2.44, respectively, as compared with 83.07 and 7.55 for the last month and 199.57 and 2.68 for the corresponding month last year. For white employees the admission rate to hospital and the death rate from disease were 283.09 and 2.83, respectively, as compared with 261.97 and 0.0 for the preceding month and 520.32 and 7.54 for the corresponding period last year.

The admission rate to hospitals and quarters for malaria was 36.14 per thousand for blacks and 84.93 for whites, as compared with a rate of 16.88 for blacks and 64.15 for whites for last month, and 76.52 for blacks and 263.93 for whites for the corresponding month of last year.

There was one death among American employees during the month, giving a death rate of 2.83, and none during the month of June; the death rate among Americans for July, 1915, was 5.63. The admission rate to hospitals from disease was 202.63, as compared with 195.03 for last month and 366.20 for the corresponding month of last year.

DEPORTATIONS.

There were 16 deportations accomplished during the month, 12 employees and 4 nonemployees, all for disease.

CANAL ZONE.

The population of the Canal Zone, as shown by a census taken by the police department during the month of June, 1916, was 31,048. This includes employees, nonemployees, and military garrisons, residing or stationed within the Canal Zone limits. There were 39 deaths among the residents of the Canal Zone during the month of July, of which 32 were from disease, giving a death rate of 12.37, as compared with 8.12 for the preceding month and 11.58 for the corresponding month last year.

Of the total deaths from disease the percentage under 5 years of age was 53, as compared with 62 for last month.

There were 45 births reported, giving a rate of 17.39; of these, 16 were white and 29 colored.

There were 10 deaths of children under 1 year of age, 2 white and 8 colored, giving an infant mortality rate, based upon the number of births reported for the month, of 125 for white and 276 for colored, with a general average of 222. The percentage of stillbirths to total births was 4.

PANAMA CITY.

The population of the city is 60,778, among whom there was a total of 157 deaths; of these, 150 deaths were from disease, giving a rate of 29.62, as compared with 30.01 for the preceding month and 25.24 for the corresponding period last year.

Of the total deaths from disease the percentage under 5 years of age was 54, as against 53 for last month.

The principal causes of death showing an increase as compared with last month were: Tuberculosis, 24, as compared with 20 for the preceding month; abscess of liver 3, as compared with none last month; arteriosclerosis 3, as compared with none last month.

There were 250 births reported, giving a rate of 49.36. There were 56 deaths under 1 year of age, giving an infant mortality rate, based upon the number of births reported for the month, of 224.

The percentage of stillbirths to total births was 10.

COLON.

The population of the city is 24,693, among whom there were 42 deaths from disease, giving a rate of 20.41 per thousand, as compared with 24.30 for the preceding month and 24.14 for the corresponding month of last year.

Of the total deaths from disease the percentage under 5 years of age was 49, as compared with 40 for the preceding month.

The principal causes of death showing an increase as compared with the preceding month, were: Tuberculosis 8, as compared with 5; acute bronchitis 5, as compared with 3; broncho-pneumonia 3, as compared with 2.

There were 82 births reported, giving a rate of 39.85, with an infant mortality rate, based upon the number of births reported for the month, of 183.

The percentage of stillbirths to total births was 7.

DIVISION OF HOSPITALS.

ANCON HOSPITAL.

The average number of patients constantly in hospital during the month was 725. The daily per capita cost per patient in the hospital proper was \$1.61 gross for June, while for the insane asylum it was \$0.445 for June.

Chronic ward.—There were 2 admissions, 7 discharges, and 3 transfers during the month, and the number of chronic and incurable patients constantly cared for during the month was 22.55. The cost per patient was \$0.2423 for June.

Board of health laboratory.—In addition to the routine work of the laboratory the mosquito census was continued during the month. There were sent to the laboratory for identification 50,837 mosquitoes from various stations on the Zone and from the terminal cities. Numbers were as follows:

Anopheles albimanus.....	8,362
Anopheles tarsimaculata.....	1,167
Anopheles damaged.....	1,061
Culex and allied genera.....	6,981
Mansonia titillans.....	32,107
Stegomyia.....	356
Ædes taeniorhynchus.....	753
All others.....	50

The west side of the canal continues relatively free from *Anopheles albimanus* and other malaria-carrying mosquitoes. In the Gatun and Cristobal Districts, however, the *albimanus* is relatively prevalent and malaria admissions are relatively higher than in other districts.

Corozal Hospital (insane).—There were during the month 19 admissions, 12 discharges, and 8 deaths. Included in the discharges was one patient transferred to Ancon Hospital for surgical treatment. There were 5 deportations to the United States, 4 soldiers and 1 charity case. The general health of the patients and cripples remains good.

Plans for the construction of a concrete addition to the piggery and reconstruction of a type 17 cottage for nurses' quarters were begun during the month; work on this construction will start shortly.

The number of days relief furnished, insane department, was 8,969, at a net cost per patient day of \$0.4256.

COLON HOSPITAL.

The average number of employees constantly sick in hospital was 27.59. The average number of day's treatment per employee was 7.19. The per capita cost of patients per day for June was \$2.86 gross.

Detailed statistics are shown in Table XIV.

PALO SECO LEPER ASYLUM.

The number of patients at the end of the preceding month was 65, and at the end of July 67. There were 2 admissions, no deaths, and no discharges.

The water supply for the asylum, which came from a well within the hospital grounds, began to fail to furnish the required supply about the middle of July; since then the supply has grown less and less and it was decided to sink another well farther back on a higher elevation. The municipal engineer is now making a new boring. It will be necessary to haul water for drinking and cooking purposes by boat from Balboa while the change in supply is being effected.

Work on the new ward for patients is progressing well. The work is being done by patients' labor under special authority of the governor.

SANTO TOMAS HOSPITAL.

During the month 1,339 patients were treated in the hospital, as compared with 1,345 for the preceding month. The daily average number of patients was 456, as compared with 441 for June, and the total number of day's treatment was 14,134, as compared with 13,632 for the preceding month. The number of deaths was 94, with pulmonary tuberculosis, congenital debility, diarrhea, and enteritis (in infants) the chief causes in the order named. There were 5 cases of typhoid fever treated, with no deaths, and 6 cases of pneumonia, with 4 deaths.

The necessity for providing separate accommodations for the large number of tuberculosis patients which are now treated in this hospital at a great menace to other patients, has again been taken up with the Panama Government, and it is hoped that some assurance may be obtained from the Government that appropriate action will be taken.

Detailed statistics are shown in Table XVI.

DISTRICT DISPENSARIES.

The dispensary having the highest admission rate for malaria was Gatun, with a percentage of 0.61. The lowest rate was in the Ancon-Corozal district, with a percentage of 0.03.

A new motor ambulance was received and placed in service in the Balboa District during the month. This provides transportation for the district physician in making professional calls, as well as transportation for patients transferred to and from Ancon Hospital.

Work on the construction of the new Ancon Dispensary began August 1.

Detailed statistics are shown in Table IX.

SANITATION.

CANAL ZONE.

The usual sanitary work has been carried on during the month. The districts in general are in a very satisfactory condition.

Work has been begun on hydraulic fills in the Balboa flats and at Paraiso. Many old insanitary quarters at New Gatun were condemned and demolished during the month. Steps have also been taken toward the condemnation and removal of insanitary dwellings in Paraiso.

The following communicable diseases were reported during the month:

Dysentery.....	6	Malaria.....	126
Pneumonia.....	2	Measles.....	3
Whooping cough.....	4	Mumps.....	1
Tuberculosis.....	7	Typhoid fever.....	2
Chickenpox.....	2	Ophthalmia neonatorum.....	1
Diphtheria.....	2		

PANAMA CITY.

During the month of July there were 11 admissions to Ancon Hospital and 24 to Santo Tomas Hospital for malaria, a total of 35 cases as compared with 71 cases during the same period last year. One death occurred, in the case of a Spanish child eight years of age, living in the suburbs.

Antimosquito work was carried on in all the districts of the division, and the total number of mosquito-breeding places encountered during the month by all inspectors was slightly less than for the previous month, 311 as against 350.

Most of the lot owners at Bella Vista finished removing the vegetation from their lots, and work of a similar nature was commenced in the exposition grounds and will be completed during the present month. On Government-owned lots, vegetation has been cut by squads of city prisoners, thus aiding considerably the forces of the health office.

Panama Railroad piers.—Several months ago the question of rat-proofing the old piers belonging to the Panama Railroad in Panama Bay, was considered, and it was found impracticable to make these piers rat proof and their destruction was decided upon. During the month of July the work of demolishing the "American wharf" was begun and will be completed during the present month.

Vaccination.—At the opening of the schools in Panama during July, arrangements were made for vaccinating all children in need of it, and this work was started during the last few days of the month. A total of 295 vaccinations were performed during the last five days of July. The work is much easier this year than last, owing to the fact that records have been kept in the schools showing what children were vaccinated, and when the inspector goes to a school now, the children are prepared for his coming, and a great deal of time is saved that was lost in the preliminaries last year.

The following communicable diseases were reported during the month:

Dysentery.....	1	Chickenpox.....	14
Malaria.....	35	Diphtheria.....	6
Measles.....	11	Leprosy.....	2
Tuberculosis.....	26	Pellagra.....	2
Typhoid fever.....	3		

COLON.

The antimosquito work for the district has been extended during the month so as to cover a wider area on Mindi Island than had been previously contemplated. As a consequence, the marshy areas have been rendered dry, a number of anopheles-breeding places eliminated, the daily anopheles catch for Camp Bierd and Mount Hope decreased and the malaria rate for the cities reduced. Quite extensive filling operations are planned for immediate completion at Mount Hope. These include swamp 7, 7A, and 7B; swamps 3B, 3C, and 3D, and the Union Oil section. This work will reduce the expense of maintenance of some of our worst areas and should bring about a considerable reduction in the malaria incidence.

A concrete, rat-proofed pier for handling the cayuca and small boat trade in coconuts, ivory nuts, etc., is undergoing erection at Folks River.

The following communicable diseases were reported during the month:

Malaria.....	40	Whooping cough.....	1
Pneumonia.....	3	Tuberculosis.....	3
Measles.....	3	Typhoid fever.....	1

QUARANTINE.

No disease of a quarantinable nature arrived at or occurred on the Isthmus during the month.

The plague situation on the west coast of South America shows no marked changes. Passengers state that this disease is very prevalent at Manta, Ecuador, though it is not officially reported as existing in this port. Returning passengers from Buenaventura, Colombia, advise that the town is not in a very good sanitary condition, that refuse is being allowed to accumulate, and that the locality is slipping back into its former unclean condition.

On the Atlantic side the quarantine officer has had some difficulty in enforcing antiplague regulations on vessels working at the docks. This matter will be investigated for the purpose of having this condition corrected. No mosquito breeding was found on sailing vessels at Cristobal-Colon during the month referred to.

The anthrax situation in the supply department pastures, Colon, shows little improvement. There were 19 deaths from the disease during the month. The disease appeared in three pastures that had been previously used as quarantine pastures. Steps have been taken to vaccinate all incoming cattle which are intended for fattening in noninfected pastures. About 300 cattle have been vaccinated and are now in the Miraflores pastures. As anthrax spores persist in swampy parts, steps have been taken to clear and drain the water holes and swampy areas in infected pastures, and these will later be fenced off from the pasture proper and artificial watering places provided. New pastures are being prepared and it is estimated that pasture provisions for a reserve of 3,300 cattle will be ready by September 1. All cattle in these pastures will be vaccinated. The services of an expert from the Bureau of Animal Industry, Department of Agriculture, have been asked for to assist in the control of the disease.

TABLE I.—ADMISSIONS, DEATHS, AND NONEFFECTIVE RATES FOR EMPLOYEES; DEATHS OF RESIDENTS OF PANAMA, COLON, AND THE CANAL ZONE.

ABSOLUTE NUMBERS.

	Number of employees.	Admissions to hospitals.			Deaths.			Noneffective from sickness.	
		Total.	Disease.	External causes.	Total.	Disease.	External causes.	Days treated.	Constantly non-effective.
<i>July, 1916.</i>									
White.....	4,239	126	100	26	1	1	.....	2,409	77.72
Colored.....	29,548	293	226	67	11	6	5	6,337	204.40
Total.....	33,787	419	326	93	12	7	5	8,746	282.12
<i>June, 1916.</i>									
White.....	4,489	117	98	19	.....	.....	.....	2,575	85.82
Colored.....	27,012	258	187	71	20	17	3	6,380	212.66
Total.....	31,501	375	285	90	20	17	3	8,955	298.48
<i>July, 1915.</i>									
White.....	4,774	207	183	24	3	3	.....	3,181	102.60
Colored.....	31,207	519	400	119	14	7	7	8,771	282.92
Total.....	35,981	726	583	143	17	10	7	11,952	385.52

PROPORTIONATE NUMBERS.¹

<i>July, 1916.</i>									
White.....	4,239	356.69	283.09	73.60	2.83	2.83	.....	.....	18.34
Colored.....	29,548	118.99	91.78	27.21	4.47	2.44	2.03	.....	6.92
Total.....	33,787	148.81	115.78	33.03	4.26	2.49	1.78	.....	8.35
<i>June, 1916.</i>									
White.....	4,489	312.76	261.97	50.79	.....	.....	.....	.....	19.12
Colored.....	27,012	114.61	83.07	31.54	8.88	7.55	1.33	.....	7.87
Total.....	31,501	142.81	108.54	34.27	7.62	6.48	1.14	.....	9.48
<i>July, 1915.</i>									
White.....	4,774	520.32	460.00	60.32	7.54	7.54	.....	.....	21.49
Colored.....	31,207	199.57	153.81	45.76	5.37	2.68	2.69	.....	9.06
Total.....	35,981	242.12	194.43	47.69	5.67	3.34	2.33	.....	10.71

¹Annual average per 1,000.

TABLE I.—ADMISSIONS, DEATHS, AND NONEFFECTIVE RATES FOR EMPLOYEES; DEATHS OF RESIDENTS OF PANAMA, COLON, AND THE CANAL ZONE—Continued.

Place.	Popu-lation.	Deaths.			Annual average per thousand.		
		Total.	Dis-ease.	Exter-nal causes.	Total.	Dis-ease.	Exter-nal causes.
<i>July, 1916.</i>							
Panama.....	60, 778	157	150	7	31.00	29.62	1.38
Colon.....	24, 693	47	42	5	22.84	20.41	2.43
Canal Zone.....	31, 048	39	32	7	15.07	12.37	2.71
Total.....	116, 519	243	224	19	25.03	23.07	1.95
<i>June, 1916.</i>							
Panama.....	60, 778	154	152	2	30.40	30.01	.39
Colon.....	24, 693	52	50	2	25.27	24.30	.97
Canal Zone.....	31, 048	27	21	6	10.44	8.12	2.32
Total.....	116, 519	233	223	10	24.00	22.97	1.03
<i>July, 1915.</i>							
Panama.....	60, 373	129	127	2	25.64	25.24	.40
Colon.....	29, 331	61	59	2	24.95	24.14	.81
Canal Zone.....	30, 057	37	29	8	14.77	11.58	3.19
Total.....	119, 761	227	215	12	22.74	21.54	1.20

TABLE II.—DEATHS BY AGE, COLOR, AND SEX, JULY, 1916.

	White.			Colored.			Yellow.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Under 1 year.....	4	4	8	38	35	73	.....	.....	.....	42	39	81
1 to 4 years.....	1	1	2	21	15	36	.....	.....	.....	22	16	38
5 to 10 years.....	.....	1	1	4	1	5	.....	.....	.....	4	2	6
11 to 20 years.....	.....	1	1	1	3	4	.....	.....	.....	1	4	5
21 to 30 years.....	2	1	3	22	19	41	1	.....	1	25	20	45
31 to 40 years.....	4	5	9	12	10	22	1	.....	1	17	15	32
41 to 50 years.....	2	1	3	8	4	12	1	.....	1	11	5	16
51 to 60 years.....	2	.....	2	4	4	8	.....	.....	.....	6	4	10
61 to 70 years.....	1	.....	1	2	.....	2	.....	.....	.....	3	.....	3
71 to 80 years.....	.....	.....	.....	1	.....	1	1	.....	1	2	.....	2
81 to 90 years.....	.....	1	1	.....	1	1	.....	.....	.....	2	.....	2
91 to 100 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not stated.....	.....	.....	.....	3	.....	3	.....	.....	.....	3	.....	3
Total.....	16	15	31	116	92	208	4	.....	4	136	107	243

TABLE III.—DEATHS BY NATIONALITY, JULY, 1916.

Nation.	Em- ploy- ees.	Non- em- ploy- ees.	Total.	Nation.	Em- ploy- ees.	Non- em- ploy- ees.	To- tal.
Antigua.....		2	2	Italy.....		3	3
Antilla.....		1	1	Jamaica.....	4	60	64
Argentina.....		1	1	Martinique.....	1	4	5
Barbados.....	5	36	41	Montserrat.....	1	2	3
British Guiana.....		1	1	Panama.....		60	60
Colombia.....		11	11	Peru.....		3	3
China.....		4	4	St. Lucia.....		9	9
Cuba.....		1	1	St. Vincent.....		1	1
Costa Rica.....		1	1	Spain.....		3	3
Dominica.....		1	1	Trinidad.....		4	4
England.....		1	1	United States.....	1	11	12
France.....		1	1	Unknown.....		5	5
Grenada.....		2	2				
Guadeloupe.....		2	2	Total.....	12	231	243
Haiti.....		1	1				

TABLE IV.—DEATH RATE AMONG AMERICANS ON THE ISTHMUS CONNECTED WITH THE PANAMA CANAL.

	Number of deaths.	Annual average per 1,000.
White employees from the United States (4,027):		
Disease.....	1	2.98
External causes.....	0	.....
Total.....	1	2.98
White women and children from the United States (3,267):		
Disease.....	4	14.69
External causes.....	0	.....
Total.....	4	14.69
White employees and their families from the United States (7,294):		
Disease.....	5	8.23
External causes.....	0	.....
Total.....	5	8.23
Total number of Americans on the Canal Zone, including soldiers and their families (15,481):		
Disease.....	5	3.87
External causes.....	3	2.33
Total.....	8	6.20

TABLE V.—CAUSES OF DEATHS OF EMPLOYEES OF THE PANAMA CANAL AND PANAMA RAILROAD CO.

Causes of death.	White.	Colored.	Total.
<i>Disease.</i>			
Tuberculosis, pulmonary.....		1	1
Cancer and other malignant tumors of the peritoneum, intestines, rectum.....		1	1
Alcoholism (acute or chronic).....	1		1
Cerebral hemorrhage.....		1	1
Lobar pneumonia.....		1	1
Appendicitis.....		1	1
Diseases of the urethra, urinary abscess, etc.....		1	1
Total.....	1	6	7
<i>External causes.</i>			
Accidental drowning.....		2	2
Fractures (cause not specified).....		1	1
Traumatism by crushings (vehicles, etc.).....		2	2
Total.....		5	5
Total from all causes.....	1	11	12

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NONEMPLOYEES) AND MILITARY, AND PLACES WHERE CHARGEABLE.

Disease.	Panama.	Colon.	Canal Zone.	Total.
<i>General diseases.</i>				
Typhoid fever.....			1	1
Malarial fever, estivo-autumnal.....	2	1	3	6
Diphtheria and croup.....	1			1
Croup.....		1		1
Purulent infection and septicemia.....	1			1
Septicemia.....	1			1
Pellagra.....	2	1		3
Beriberi.....			2	2
Tuberculosis of the lungs.....	18	6		24
Tuberculosis of other organs.....	1			1
Disseminated tuberculosis.....	5	2	3	10
Syphilis, tertiary.....	2			2
Cancer and other malignant tumors of the stomach and liver.....	1		1	2
Cancer and other malignant tumors of the peritoneum, intestines, rectum.....			1	1
Other general diseases.....	1			1
Alcoholism, acute or chronic.....		1	1	2
Alcoholism, chronic.....	2			2
<i>Diseases of the nervous system and of the organs of special sense.</i>				
Simple meningitis.....	2			2
Cerebral hemorrhage, apoplexy.....	1	1		2
Softening of the brain.....			1	1
General paralysis of the insane.....			1	1
Epilepsy.....	1	1		2
Convulsions of infants (under 5 years of age).....			2	2

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NON EMPLOYEES) AND MILITARY, AND PLACES WHERE CHARGEABLE—Continued.

Disease.	Pana- ma.	Colon.	Canal Zone.	Total.
<i>Diseases of the circulatory system.</i>				
Pericarditis.....	1	.....	.....	1
Acute endocarditis.....	1	.....	.....	1
Organic diseases of the heart.....	7	2	.....	9
Aneurysm.....	1	.....	.....	1
Arteriosclerosis.....	3	.....	.....	3
Embolism and thrombosis.....	1	.....	1	2
<i>Diseases of the respiratory system.</i>				
Acute bronchitis.....	2	5	.....	7
Broncho-pneumonia.....	6	3	3	12
Pneumonia (unqualified).....	4	.....	.....	4
Lobar pneumonia.....	4	1	1	6
Empyema.....	.....	1	.....	1
Pulmonary congestion, pulmonary apoplexy.....	1	.....	.....	1
Gangrene of the lungs.....	1	.....	.....	1
Asthma.....	1	.....	.....	1
<i>Diseases of the digestive system.</i>				
Diarrhea and enteritis (under 2 years).....	44	1	2	47
Colitis.....	6	.....	1	7
Chronic appendicitis.....	.....	1	.....	1
Cirrhosis of the liver.....	1	.....	.....	1
Abscess of liver (unqualified).....	3	.....	.....	3
Simple peritonitis (nonpuerperal).....	2	.....	.....	2
<i>Nonvenereal diseases of the genito-urinary system and annexa.</i>				
Bright's disease (chronic nephritis).....	.....	2	1	3
Other diseases of the kidney and annexa.....	.....	1	3	4
Diseases of the urethra, urinary abscess, etc.....	.....	.....	2	2
Stricture of the urethra, nonvenereal.....	1	.....	.....	1
Salpingitis and other diseases of the female genital organs.....	1	.....	.....	1
<i>The puerperal state.</i>				
Puerperal hemorrhage.....	1	.....	.....	1
Other accidents of labor.....	1	.....	.....	1
Puerperal septicemia.....	1	.....	.....	1
<i>Diseases of early infancy.</i>				
Congenital debility, icterus, and sclerema.....	.....	1	1	2
Premature birth.....	6	1	.....	7
Congenital debility.....	1	2	.....	3
Malnutrition.....	3	2	1	6
Other causes peculiar to early infancy (including various consequences of labor).....	2	2	.....	4
<i>Old age.</i>				
Senility.....	2	.....	.....	2

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NONEMPLOYEES) AND MILITARY, AND PLACES WHERE CHARGEABLE—Continued.

Disease.	Panama.	Colon.	Canal Zone.	Total.
<i>Affections produced by external causes.</i>				
Suicide by firearms.....	3	.....	.....	3
Acute poisonings.....	1	.....	.....	1
Conflagration.....	.....	5	.....	5
Accidental drowning.....	1	.....	2	3
Traumatism by firearms.....	.....	.....	1	1
Traumatism by fall.....	1	.....	.....	1
Traumatisms by crushings (vehicles, railroads, landslides, etc.).....	1	.....	1	2
Homicide by other means.....	.....	.....	1	1
Fracture (cause not specified).....	.....	.....	2	2
<i>Ill-defined diseases.</i>				
Cause of death not specified or ill defined.....	3	1	.....	4
Total.....	157	47	39	243
Stillbirths.....	25	6	2	33
Grand total.....	182	53	41	276
Died from disease.....	150	42	32	224
Died from external causes.....	7	5	7	19
Total.....	157	47	39	243

DEATHS OF NONRESIDENTS.¹

Residence.	Nationality.	Color.	Sex.	Age.	Diagnosis.
Interior of Panama.	Panaman..	Black...	Male....	70	Fever, undetermined.
Do.....	do.....	do.....	Female..	44	Chronic nephritis.
Do.....	do.....	do.....	Male....	43	Cardiac hypertrophy and dilation.
Do.....	Colombian.	do.....	do.....	43	Chronic nephritis.
Do.....	Panaman..	do.....	Female..	60	Arteriosclerosis.
Do.....	Colombian.	do.....	Male....	28	Traumatism by firearms.
Do.....	Panaman..	do.....	do.....	68	Strangulated hernia.
Do.....	Cuban....	do.....	do.....	33	Myocardial insufficiency.
Do.....	Panaman..	White...	Female..	25	Pulmonary tuberculosis.
Steamship Almirante.	Spanish....	do.....	Male....	19	Heat exhaustion.
Interior of Panama.	Panaman..	Black...	do.....	22	Chronic diffused nephritis.
Do.....	Colombian.	do.....	do.....	50	Chronic nephritis.
Do.....	Panaman..	do.....	do.....	49	Softening of brain.
Do.....	Chinese..	Yellow..	do.....	40	Carbuncle.

¹ Deaths of nonresidents are not included in the statistical charts relating to the cities of Panama and Colon or of the Canal Zone.

TABLE VII.—ADMISSIONS AND DEATHS

Diseases.	Employees.											
	Admissions.						Deaths..					
	White.				Black.	White.				Black.		
	Ameri- cans.		Euro- peans.			Ameri- cans.		Euro- peans.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>General diseases.</i>												
Typhoid fever.....	1				1							
Malarial fever, estivo-au- tumnal.....	10		10		75	1						
Malarial fever, tertian.....	3		1		8							
Malarial fever, quartan.....					1							
Malarial fever, clinical.....	2				3							
Measles.....					2							
Whooping cough.....												
Diphtheria and croup.....					1							
Influenza.....	1		1		1							
Cholera nostras.....					1							
Dysentery.....												
Dysentery, entamoebic.....			1									
Dysentery, bacillary.....												
Chicken pox.....					2							
Filariasis.....					1							
Beriberi.....												
Tuberculosis of the lungs....	1		1		5						1	
Pott's disease.....												
Tuberculosis of the lymph glands.....					2							
Tuberculosis of the genito- urinary organs.....												
Disseminated tuberculosis.....					1							
Syphilis, secondary.....					2							
Syphilis, tertiary.....	2		2		17							
Syphilis, period not stated.....					4							
Gonorrhea.....	1				7							
Gonorrheal orchitis and epididymitis.....					5							
Soft chancre.....	4				6							
Adenitis chancroidal.....			1									
Cancer and other malignant tumors of the peritoneum, intestines, rectum.....											1	
Cancer and other malignant tumors of the female geni- tal organs.....					1							
Cancer and other malignant tumors of the skin.....												
Other tumors (tumors of the female genital organs ex- cepted).....												
Acute articular rheumatism.....					1							
Chronic rheumatism and gout.....				1								

IN THE HOSPITALS OF THE PANAMA CANAL.

[illegible]

TABLE VII.—ADMISSIONS AND DEATHS IN THE

Diseases.	Employees.											
	Admissions.						Deaths.					
	White.				Black.	White.				Black.		
	Ameri- cans.		Euro- peans.			Ameri- cans.		Euro- peans.				
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.
<i>General diseases—Contd.</i>												
Anemia secondary, cause not determined.....												
Other general diseases.....												
Alcoholism, acute or chronic	1						1					
Alcoholism, acute.....					1							
Alcoholism, chronic.....												
Alcoholic psychosis.....					1							
<i>Diseases of the nervous system and of the organs of special sense.</i>												
Softening of the brain.....												
Paralysis without specified cause.....					1							
General paralysis of the insane.....												
Other forms of mental alienation.....												
Dementia precox.....					1							
Hysteria.....												
Neuritis.....					1							
Other diseases of the nervous system.....					1							
Neurasthenia.....	1											
Diseases of the eyes and their annexa.....	1			1	4							
Diseases of the ears.....	1											
<i>Diseases of the circulatory system.</i>												
Organic diseases of the heart.....			1		1							
Aneurysm.....					1							
Arteriosclerosis.....					1							
Embolism and thrombosis.....												
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.).....	1		1									
Hemorrhoids.....	1				2							
Diseases of the lymphatic system (lymphangitis, etc.).....			1		1							
Lymphadenitis (nonvenereal).....	1	1	1		1							

HOSPITALS OF THE PANAMA CANAL—Continued.

[illegible]

TABLE VII.—ADMISSIONS AND DEATHS IN THE

Diseases.	Employees.											
	Admissions.						Deaths..					
	White.				Black.		White.				Black.	
	Ameri- cans.		Euro- peans.				Ameri- cans.		Euro- peans.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>Nonvenereal diseases of the genito-urinary system and annexa—Continued.</i>												
Pyelonephrosis												
Calculi of the urinary pas- sages												
Cystitis	1											
Diseases of the urethra, urinary abscess, etc.					1						1	
Stricture of the urethra, non- venereal					2							
Hypertrophy of prostate												
Nonvenereal diseases of the male genital organs					2							
Hematocele												
Hydrocele					2							
Uterine tumor, noncancer- ous		1										
Other diseases of the uterus												
Cysts and other tumors of the ovary												
Salpingitis and other dis- eases of the female genital organs						1						
Benign tumor of breast												
<i>The puerperal state.</i>												
Normal labor												
Accidents of pregnancy												
Extra-uterine pregnancy												
Hyperemesis gravidarum												
Abortion												
Puerperal hemorrhage												
Other accidents of labor												
Puerperal septicemia												
Puerperal diseases of the breast												
<i>Diseases of the skin and of the cellular tissue.</i>												
Furuncle												
Acute abscess					1							
Phlegmon and cellulitis	2				2							
Ulcer of the skin					3							
Impetigo contagiosa					1							
Ingrowing nail	1											
Other diseases of the skin and annexa			1		2							

TABLE VII.—ADMISSIONS AND DEATHS IN THE

Diseases.	Employees.											
	Admissions.						Deaths.					
	White.				Black.	White.				Black.		
	Ameri- cans.		Euro- peans.			Ameri- cans.		Euro- peans.				
	M.	F.	M.	F.		M.	F.	M.	F.			
<i>Diseases of the bones and of the organs of locomotion.</i>												
Diseases of the bones (tu- berculosis excepted).....		2			1							
Arthritis.....			1		2							
Amputations.....	1				2							
Other diseases of the organs of locomotion.....	1											
<i>Malformations.</i>												
Congenital malformations (stillbirth not included).....					1							
<i>Diseases of early infancy.</i>												
Newborn child.....												
Premature birth.....												
<i>Affections produced by exter- nal causes.</i>												
Poisoning by food.....	2											
Other acute poisonings.....												
Conflagration.....												
Burns (conflagration ex- cepted).....					4							
Traumatism by firearms.....					2							
Traumatism by cutting or piercing instruments.....	2		4		7							
Traumatism by fall.....	1		2		7							
Traumatism by machines.....			1		4							
Traumatism by other crush- ings (vehicles, railroads, landslides, etc.).....			1		14							
Injuries by animals.....												
Electricity (lightning ex- cepted).....	1				1							
Fractures (cause not speci- fied).....	3				2							
Sprains.....					2							
Other external violence.....	5		4		24							
<i>Ill-defined diseases.</i>												
Ill-defined organic disease.....												
Infections of undetermined origin.....	2				6							
No disease.....					1							
Total.....	76	6	43	1	291	2	1				4	

HOSPITALS OF THE PANAMA CANAL—Continued.

Nonemployees.											Nonresidents.								Total admissions.	Total deaths.
Admissions.						Deaths.					Admissions.				Deaths.					
W.			B.			W.			B.		W.		B.		W.		B.			
Sol-d'rs.	Others.					Sol-d'rs.	Others.				W.	B.	W.	B.	W.	B.				
M.	M.	F.	M.	F.	M.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
1		1																		
2		3																		
1			1																	
1																				
			1																	
				1																
		4	11	1	3				1	2										
				1	2															
1	1	1																		
		1		1																
			1																	
						1							1							
3	1	1	1	1	1															
											1									
	1			2																
1																				
3				1																
2																				
3	2				4						1									
		2																		
1																				
4				2	1						1									
1	1	10			4						1									
150	47	89	80	117		1	4	5	7	14	26	...	2	...	1	...	1			
																	930			
																	38			

TABLE VIII.—CONSOLIDATED

A—White Americans. F—White

	Remaining July 1.			Admitted.			Died.		
	A.	F.	B.	A.	F.	B.	A.	F.	B.
ANCON HOSPITAL.									
Panama Canal employees.....	15	17	118	57	25	147	1	.....	2
Panama Railroad employees.....	2	7	55	10	5	59	.....	.....	1
Panama pay patients.....	.....	.....	1	.....	.....	2	.....	.....	.....
Other pay patients.....	106	28	49	213	30	141	5	3	8
Charity patients.....	5	2	35	18	3	18	.....	.....	4
Total.....	128	54	258	298	63	367	6	3	15
<i>Insane department.</i>									
Panama Canal employees.....	.....	5	10	.....	.....	.....	.....	.....	.....
Panama Railroad employees.....	.....	.....	5	.....	.....	2	.....	.....	.....
Panama pay patients.....	2	31	172	.....	2	10	.....	2	6
Other pay patients.....	5	3	1	1	1	2	.....	.....	.....
Charity patients.....	4	5	48	.....	.....	1	.....	.....	.....
Total.....	11	44	236	1	3	15	.....	2	6
Grand total.....	139	98	494	299	66	382	6	5	21
<i>Corozal farm.</i>									
Panama Canal employees.....	.....	10	44	.....	4	10	.....	.....	.....
<i>Chronic ward.</i>									
Charity patients.....	.....	.....	28	.....	.....	2	.....	.....	.....
COLON HOSPITAL.									
Panama Canal employees.....	5	2	2	13	11	33	.....	.....	1
Panama Railroad employees.....	1	1	11	2	3	52	.....	.....	.....
Panama pay patients.....	.....	1	.....	2	2	13	.....	1	1
Other pay patients.....	5	2	3	14	19	9	.....	.....	2
Charity patients.....	.....	.....	.....	3	2	5	.....	.....	1
Total.....	11	6	16	34	37	112	.....	1	5
PALO SECO LEPER ASYLUM.									
Panama Canal employees.....	.....	.....	3	.....	.....	1	.....	.....	.....
Panama Railroad employees.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Panama pay patients.....	.....	2	37	.....	.....	1	.....	.....	.....
Other pay patients.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charity patients.....	.....	2	21	.....	.....	.....	.....	.....	.....
Total.....	.....	4	61	.....	.....	2	.....	.....	.....
GRAND TOTAL.									
Panama Canal employees.....	20	34	177	70	40	191	1	.....	3
Panama Railroad employees.....	3	8	71	12	8	113	.....	.....	1
Panama pay patients.....	2	34	210	2	4	26	.....	3	7
Other pay patients.....	116	33	53	228	50	152	5	3	10
Charity patients.....	9	9	132	21	5	26	.....	.....	5
Total.....	150	118	643	333	107	508	6	6	26

Number of employees remaining in hospitals:

White.....	70
Black.....	215

Total.....	285
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HOSPITAL REPORT.
foreigners. B=Blacks.

Discharged.			Transferred.			Remaining July 31.			Average number constantly sick.			
									White.		Black.	Total.
A.	F.	B.	A.	F.	B.	A.	F.	B.	American.	Foreign.		
54	25	146	....	1	3	17	16	114	21.90	16.29	111.42	149.61
7	4	58	....	....	2	5	8	53	3.52	5.90	55.97	65.39
224	38	108	....	1	3	90	16	71	97.65	21.22	1.58	1.58
16	4	22	....	....	5	7	1	22	4.22	1.72	64.84	183.71
											30.25	36.19
301	71	334	....	2	13	119	41	263	127.29	45.13	264.06	436.48
							5	10		5.00	10.00	15.00
								7			5.55	5.55
	2	1		2	2	29	173		2.00	31.19	172.29	205.48
5	1				1	3	3		1.71	2.81	2.32	6.84
1		1			3	5	48		3.64	6.00	46.81	56.45
6	3	2	....	....	2	6	42	241	7.35	45.00	236.97	289.32
307	74	336	....	2	15	125	83	504	134.64	90.13	501.03	725.80
	2	1					12	53		10.74	48.71	59.45
		7			3			20			22.55	22.55
15	10	22	....	2	1	3	1	11	4.51	2.48	6.80	13.79
2	1	47		1	11	1	2	5	1.00	1.32	11.48	13.80
1	2	4	1	....	7	....	....	1	.12	.03	1.19	1.34
12	15	2	2		6	5	6	2	2.32	6.41	2.03	10.76
		1	1	1	3	2	1	....	.29	.48	.25	1.02
30	28	76	4	4	28	11	10	19	8.24	10.72	21.75	40.71
								4			3.71	3.71
							2	38		2.00	37.58	39.58
							2	21		2.00	21.00	23.00
							4	63		4.00	62.29	66.29
69	37	169	....	3	4	20	34	192	26.41	34.51	180.64	241.56
9	5	105	....	1	13	6	10	65	4.52	7.22	73.00	84.74
1	4	5	1	....	9	2	31	215	2.12	33.22	212.64	247.98
241	54	110	2	1	9	96	25	76	101.68	30.44	69.19	201.31
17	4	31	1	1	11	12	9	111	8.15	10.20	120.86	139.21
337	104	420	4	6	46	136	109	659	142.88	115.59	656.33	914.80

TABLE IX.—CONSOLIDATED DISPENSARY REPORT.

EMPLOYEES TREATED IN QUARTERS.

	Remain- ing June 1.		Admit- ted.		Died.		Dis- charged.		Trans- ferred.		Remain- ing June 30.		Days lost.		
	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	Total.
Ancon.....			88				85		2		1		164		164
Balboa.....	3		85	4			82	4	2		4		209	12	221
Pedro Mi- guel.....			8				6		1		1		23		23
Paraiso.....			19	3			19	3					29	4	33
Gamboa.....	1		1	3			1	3	1				4	2	6
Gatun.....	2	1	9	5			10	6			1		24	22	46
Colon.....	6	17	86	34			87	40			5	11	192	426	618
Total.....	12	18	296	49			290	56	6		12	11	645	466	1,111

ALL CASES TREATED, BUT NOT EXCUSED.

	Employees.			Nonemployees.			Total.		
	White.	Black.	Total.	White.	Black.	Total.	White.	Black.	Total.
Ancon.....	2,475	3,891	6,366	1,779	2,628	4,407	4,254	6,519	10,773
Balboa.....	3,382	3,684	7,066	929	840	1,769	4,311	4,524	8,835
Pedro Miguel..	525	591	1,116	463	510	973	988	1,101	2,089
Paraiso.....	811	2,658	3,469	512	731	1,243	1,323	3,389	4,712
Gamboa.....	49	178	227	49	347	396	98	525	623
Gatun.....	541	1,560	2,101	666	1,445	2,111	1,207	3,005	4,212
Colon.....	863	2,953	3,816	726	755	1,481	1,589	3,708	5,297
Total....	8,646	15,515	24,161	5,124	7,256	12,380	13,770	22,771	36,541

CONSOLIDATED ADMISSIONS REPORT.

	White.	Black.	Total.
Total admissions to hospitals, excluding Corozal farm and chronic ward.....	436	504	940
Total admissions of employees to quarters.....	296	49	345
Total.....	732	553	1,285
Less number of patients transferred between hospitals and from quarters to hospitals, whose admissions are duplicated in above figures.....	16	43	59
Net admissions to hospitals and quarters.....	716	510	1,226
Net admissions of employees to hospitals and quarters.....	412	326	738
Annual average per thousand of admissions of employees to hospitals and quarters.....	1,166.30	132.39	262.11

TABLE IX.—CONSOLIDATED DISPENSARY REPORT—Continued.
CONTAGIOUS AND INFECTIOUS DISEASES REPORTED.

Disease.	Panama.	Colon.	Canal Zone.	Total.
Dysentery.....	1	.....	6	7
Malaria.....	35	40	126	201
Pneumonia.....	.....	3	2	5
Measles.....	11	3	3	17
Whooping cough.....	.....	1	4	5
Mumps.....	.....	.....	1	1
Tuberculosis.....	26	3	7	36
Typhoid fever.....	3	1	2	6
Chicken pox.....	14	.....	2	16
Ophthalmia neonatorum.....	.....	.....	1	1
Diphtheria.....	6	.....	2	8
Leprosy.....	2	.....	.....	2
Pelagra.....	2	.....	.....	2
Total.....	100	51	156	307

TABLE X.—NUMBERS OF EMPLOYEES CONSTANTLY SICK IN HOSPITALS AND QUARTERS.

	White.	Colored.	Total.
Hospitals:			
Ancon Hospital.....	47.61	167.39	215.00
Colon Hospital.....	9.31	18.28	27.59
Palo Seco Leper Asylum.....	.....	3.71	3.71
Total.....	56.92	189.38	246.30
Quarters:			
Ancon.....	5.29	.....	5.29
Balboa.....	6.74	.39	7.13
Pedro Miguel.....	.74	.....	.74
Paraiso.....	.94	.13	1.07
Gamboa.....	.13	.06	.19
Gatun.....	.77	.70	1.47
Colon.....	6.19	13.74	19.93
Total.....	20.80	15.02	35.82
	Hospitals.	Quarters.	Total.
Average number of employees constantly sick:			
White.....	56.92	20.80	77.72
Colored.....	189.38	15.02	204.40
Total.....	246.30	35.82	282.12
Average number of employees constantly sick per 1,000:			
White.....	13.43	4.91	18.34
Colored.....	6.41	.51	6.92
Total.....	7.29	1.06	8.35

TABLE XI.—AVERAGE LENGTH OF STAY IN HOSPITALS OR
QUARTERS FOR EACH ADMISSION OF SICK EMPLOYEE.

	White.	Black.	Total.
Hospitals:			
Ancon Hospital.....	12.10	22.48	19.34
Colon Hospital.....	9.49	6.30	7.19
Quarters:			
Ancon.....	2.18	.....	2.18
Balboa.....	2.43	3.00	2.45
Pedro Miguel.....	3.29	.....	3.29
Paraiso.....	1.53	1.33	1.50
Gamboa.....	2.50	.66	1.40
Gatun.....	2.60	3.83	3.06
Colon.....	2.25	14.05	5.97

TABLE XII.—FINANCIAL STATEMENT.

	June, 1916.	May, 1916.	June, 1915.
Administration: Chief health office.....	\$566.43	\$695.35	\$747.66
Hospital division:			
Ancon Hospital.....	26,075.79	26,744.97	25,244.94
Board of Health Laboratory.....	2,107.05	1,875.32	1,670.27
Corozal farm.....	6,024.47	5,586.15	5,625.79
Chronic ward.....	229.08	249.61	248.93
Colon Hospital.....	4,316.32	4,494.36	3,398.71
Palo Seco Leper Asylum.....	1,508.86	1,708.31	2,463.56
Santo Tomas Hospital.....	805.50	785.83	969.45
Medical storehouse.....	1,595.41	1,762.73	820.06
Depreciation.....	834.15	823.94	.....
	43,496.63	44,031.22	40,441.71
District dentists.....	249.48	.....	6.98
Dispensaries:			
Naos Island.....	.....	.....	178.62
Balboa.....	1,061.40	1,181.66	1,050.21
Corozal.....	.....	.....	697.66
Pedro Miguel.....	448.99	446.33	548.43
Paraiso.....	600.97	594.02	641.51
Culebra.....	.....	.....	1.90
Gamboa.....	260.44	215.88	140.08
Gatun.....	577.24	692.69	744.09
Toro Point.....	.....	.....	.....
	3,198.52	3,130.58	4,009.48
Sanitary division:			
General inspector.....	50.00	50.00	50.00
Health office, Panama.....	3,630.77	3,605.57	3,739.00
Street cleaning.....	4,128.26	3,909.94	4,273.79
Health office, Colon.....	3,007.35	3,292.49	2,322.67
Street cleaning.....	2,327.39	1,711.72	2,231.89
	13,143.77	12,569.72	12,617.35
Zone sanitation:			
Ancon.....	2,584.37	1,417.51	1,525.58
Balboa.....	2,215.55	1,138.11	2,909.40
Corozal.....	2,772.26	2,094.87	1,666.81
Pedro Miguel.....	4,043.61	2,341.01	2,193.53

TABLE XII.—FINANCIAL STATEMENT—Continued.

	June, 1916.	May, 1916.	June, 1915.
Zone sanitation—Continued.			
Culebra.....			\$331.26
Frijoles.....	\$70.22	\$62.70	100.41
Gatun.....	4,437.65	3,770.25	2,183.19
Cristobal-Mount Hope.....	2,374.31	2,017.85	1,963.75
	31,641.74	25,412.02	25,546.23
Quarantine division:			
Chief quarantine office.....	117.23		181.75
Balboa-Panama.....	2,188.81	1,922.03	1,888.74
Colon-Cristobal.....	3,172.94	3,022.05	2,889.24
	5,478.98	4,944.08	4,959.73
RECAPITULATION.			
Chief health office.....	566.43	695.35	747.66
Hospital division.....	43,496.63	44,031.22	40,441.71
Dispensaries.....	3,198.52	3,130.58	4,009.48
Sanitary division.....	31,641.74	25,412.02	25,546.23
Quarantine division.....	5,478.98	4,944.08	4,959.73
Total.....	84,382.30	78,213.25	57,704.86

TABLE XIII.—ANCON HOSPITAL.

REPORT OF NATIONALITY OF PATIENTS TREATED.

	Total num- ber treat- ed.	American.		Other nations.	
		White.	Black.	White.	Black.
Hospital:					
Panama Canal employees.....	379	72	2	42	263
Panama Railroad employees.....	138	12		12	114
Panama Government patients.....	3				3
Other pay patients.....	567	319	1	58	189
Charity patients.....	81	23		5	53
Total.....	1,168	426	3	117	622
Asylum:					
Panama Canal employees.....	15			5	10
Panama Railroad employees.....	7				7
Panama Government patients.....	217	2		33	182
Other pay patients.....	13	6		4	3
Charity patients.....	58	4		5	49
Total.....	310	12		47	251
Grand total.....	1,478	438	3	164	873
Soldiers.....	227	227			
Chronics.....	30				30
Farm (cripples).....	68			14	54

TABLE XIII.—ANCON HOSPITAL—Continued.

REPORT OF DAYS LOST IN HOSPITAL.

	Total.	Ameri- can.	Other white.	Black.
Hospital:				
Panama Canal employees.....	4,638	679	505	3,454
Panama Railroad employees.....	2,027	109	183	1,735
Panama Government patients.....	49			49
Other pay patients.....	5,695	3,027	658	2,010
Charity patients.....	1,122	131	53	938
Total.....	13,531	3,946	1,399	8,186
Asylum:				
Panama Canal employees.....	465		155	310
Panama Railroad employees.....	172			172
Panama Government patients.....	6,370	62	967	5,341
Other pay patients.....	212	53	87	72
Charity patients.....	1,750	113	186	1,451
Total.....	8,969	228	1,395	7,346
Grand total.....	22,500	4,174	2,794	15,532
Soldiers.....	2,247	2,247		
Chronics.....	699			699
Farm (cripples).....	1,843		333	1,510

Average cost of subsistence per day, \$0.2629.

WARD LABORATORY REPORT.

Blood examinations, total number.....	576
Estivo-autumnal.....	115
Quartan.....	2
Tertian.....	15
Differential counts.....	9
Leucocyte counts.....	103
Hemoglobin estimations.....	76
Red blood counts.....	5
Stool examinations, total number.....	683
Ameba.....	1
Ascaris lumbricoides.....	11
Cercomonas intestinalis.....	2
Ciliated nomads.....	8
Entameba (hystolitica and tetragena).....	10
Guaiac tests.....	28
Pus and blood.....	95
Strongyloides.....	16
Tricocephalus dispar.....	30
Uncinaria (ova).....	15
Urine examinations, total number.....	1,949
Albumen.....	393
Albumen estimations, quantitative.....	6
Bile.....	31
Casts.....	389
Epithelia.....	832
Guaiac tests.....	8
Indocan.....	50
Pus and blood.....	926
Sugar (all negative).....	159

TABLE XIII.—ANCON HOSPITAL—Continued.

WARD LABORATORY REPORT—Continued.

Sputum examinations, total number.....	203
Positive for tubercle bacilli.....	20
Smear examinations, total number.....	41
Urethral.....	20
Urine.....	7
Vaginal.....	4
Spinal fluid.....	6
Vomit.....	3
Nasal.....	1

REPORT OF SURGICAL OPERATIONS.

	Number.	Died.
Amputations:		
Shoulder.....	1	.....
Thigh.....	1	.....
Leg.....	1	.....
Digits, multiple.....	1	.....
Leg, double.....	1	.....
Operations on bones:		
Osteotomy.....	4	.....
Wiring of fractures, simple.....	2	.....
Wiring of fractures, compound.....	1	.....
Mayo bunion.....	1	.....
Arthroplasty hip.....	1	.....
Arthroplasty knee.....	1	.....
Adenectomy:		
Cervical.....	2	.....
Axillary.....	1	.....
Inguinal, single.....	17	.....
Inguinal, double.....	1	.....
Femoral.....	5	.....
Herniotomy:		
Inguinal, single.....	9	.....
Inguinal, double.....	3	.....
Ventral.....	1	.....
Genito-urinary tract:		
Urethrotomy, internal.....	1	1
Urethrotomy, external.....	3	.....
Varicocele, radical cure.....	3	.....
Hydrocele, single, radical cure.....	3	.....
Hydrocele, double, radical cure.....	1	.....
Orchidectomy.....	2	.....
Epididymotomy.....	8	.....
Amputation of scrotum.....	1	.....
Curetage uteri.....	4	.....
Perineoplasty.....	3	.....
Trachelorrhaphy.....	2	.....
Obstetrical:		
Cæsarian section, abdominal.....	2	1
Perineorrhaphy.....	1	.....
Rectum:		
Hemorrhoids, radical cure.....	3	1
Fistula in anus, excision of.....	1	.....
General:		
Varicose veins, excision of.....	1	.....
Tenorrhaphy.....	1	.....
Myorrhaphy.....	1	.....
Excision of surface neoplasms.....	2	.....
Plastic operation for severe injuries.....	1	.....

TABLE XIII.—ANCON HOSPITAL—Continued.

REPORT OF SURGICAL OPERATIONS—Continued.

	Number.	Died.
Laparotomy:		
General peritonitis (not traumatic or appendicial).....	1	.....
Gastro-enterostomy.....	1	.....
Appendectomy.....	13	.....
Appendectomy with local peritonitis.....	5	.....
Colostomy.....	2	1
Sigmoidopexy.....	1	.....
Supravaginal hysterectomy.....	5	1
Hysteromyomectomy.....	4	.....
Salpingectomy, single.....	1	.....
Salpingectomy, double.....	1	.....
Ovarian cystectomy.....	1	.....
Suspensio-uteri.....	4	.....
Major operations, various other.....	2	.....
Minor operations, various.....	118	.....
Total.....	257	5

REPORT OF OPERATIONS, EYE AND EAR CLINIC.

Submucous resection of nasal septum.....	6
Tonsillectomy.....	4
Adenoidectomy.....	4
Pterygium transplantation.....	3
Turbineotomy.....	1
Magnet removal of steel from eyeball.....	1
Minor operations:	
Eye.....	2
Ear.....	1
Throat.....	2
Total.....	5
Refractions.....	24
	51

REPORT OF OUT-PATIENT DEPARTMENT.

Clinic.	Total visits.	New cases.	Pay cases.	Prescriptions.
Medical.....	250	166	33	235
Surgical.....	232	92	7	37
Eye and Ear.....	689	290	1	234
Total.....	1,171	548	41	506

MONTHLY VACCINATION REPORT.

Number of adults vaccinated.....	10
Children.....	0
Total.....	10

TABLE XIII.—ANCON HOSPITAL—Continued.

BOARD OF HEALTH LABORATORY—MONTHLY REPORT.

Bacteriological examinations of—		
Blood cultures.....	23	
Throat cultures.....	59	
Urines.....	30	
Stools.....	19	
Sputum.....	6	
Blood, horse, for trypanosoma.....	1	
Pathological fluids, exudates, etc.....	8	
Cultures of autopsies.....	1	
Ice cream.....	4	
Milk.....	1	
Wasserman reactions.....	605	
Leper suspects.....	1	
Agglutination reactions.....	5	
Autogenous vaccines prepared.....	2	
Antityphoid vaccinations.....	6	
Animal inoculations.....	11	
Dairy milk from Corozal farm.....	26	
Dark-field examinations.....	2	
Blood for malaria.....	3	
Vaccine points (smallpox) manufactured.....	2,300	
Chemical examinations of—		
Mother's milk.....	3	
Urines.....	18	
Fat determinations of milk from Corozal dairy.....	20	
Butyric acid tests.....	10	
Colloidal gold.....	5	
"Vergrout".....	1	
"Concentrol".....	1	
"Zest".....	1	
Beef.....	2	
Pathological tissues prepared, paraffin.....	228	
Pathological tissues prepared, frozen.....	4	
Surgical tissues reported.....	33	
Autopsies performed.....	29	
Animals autopsied.....	30	
Rats examined:		
Mus musculus.....	522	
Mus norvegicus.....	904	
Mus alexandrinus.....	14	
Mus rattus.....	163	
	1,603	
Bodies embalmed.....	4	
Interments at Corozal.....	10	
Taken to Panama.....	7	
Cremations.....	22	

COROZAL HOSPITAL.

STATEMENT OF COMMITMENTS, DISCHARGES, AND DEATHS, JULY, 1916.

COMMITMENTS.

	Male.	Female.
From Canal Zone, first admission.....	5	2
From Panama Government, first admission.....	8	4
Total.....	13	6

COROZAL HOSPITAL—Continued.

DISCHARGES.

	Well.		Improved.		Unimproved.	
	Male.	Female.	Male.	Female.	Male.	Female.
Costa Rica.....				1		
Jamaica.....			1			
Panama.....				1	1	1
Portugal.....			1			
St. Vincent.....	1					
United States.....	1				2	5
Total.....	2		2	2	6	

¹ 1 transferred to Ancon Hospital for surgical treatment.² 5 deported to the United States.

DEATHS.

Medical diagnosis.	Mental diagnosis.	Male.	Female.
Pyonephritis; cystitis; urethral strictures; leprosy.	Psychosis undetermined.	1	
Arteriosclerosis.....	Psychosis associated with arteriosclerosis.	1	
Psychosis; syphilis.....	Psychosis associated with cerebral syphilis.		1
Disseminated tuberculosis; cyst of brain; epilepsy.	Psychosis associated with epilepsy.		1
Syphilis, tertiary; pellagra.....	Psychosis associated with cerebral syphilis.		1
General paralysis of insane; gangrene of lungs; dysentery.	General paralysis of the insane.	1	
Softening of brain; syphilis.....	do.....	1	
Disseminated tuberculosis; epilepsy.	Psychosis associated with epilepsy.		1

TABLE XIV.—COLON HOSPITAL.

NATIONALITY.

	White American.	White foreign.	Black.	Total.
Panama Canal employees.....	18	13	35	66
Panama Railroad employees.....	3	4	63	70
Panama pay.....	2	3	13	18
Other pay.....	19	21	12	52
Charity cases.....	3	2	5	10
	45	43	128	216

TABLE XIV.—COLON HOSPITAL—Continued.

LABORATORY REPORT.

Blood examinations.....	164
Estivo-autumnal.....	63
Tertian.....	6
Quartan.....	1
White blood counts.....	7
Red blood counts.....	2
Differential counts.....	8
Stool examinations.....	15
Uncinaria.....	1
Ascaris.....	2
Oxyuris vermiculosis.....	4
Tricocephalus dispar.....	6
Urine examinations.....	141
Albumen.....	61
Sugar.....	5
Casts.....	25
Epithelia cells.....	65
Red blood counts.....	2
White blood counts.....	15
Triple phosphate.....	5
Calcin oxalate.....	6
Sputum examinations.....	9
Positive for tubercle bacilli.....	2
Smear examinations.....	3
Positive for gonorrhea.....	1

SURGICAL OPERATIONS.

Amputations:	
Forearm.....	1
Digits, multiple.....	1
Operations on bones: Craniectomy, exploratory.....	1
Herniotomy: Inguinal, single.....	5
Genito-urinary tract:	
Urethrotomy, external.....	1
Cyretage uteri.....	1
Obstetrical:	
High forceps.....	1
Version.....	1
Perineorrhaphy.....	1
General: Extensive injuries to soft parts, operation for.....	2
Laparotomy:	
Appendectomy.....	1
Appendectomy with local peritonitis.....	1
Minor operations, various.....	7
Minor operations, various (dispensary).....	126

TABLE XV.—PALO SECO LEPER ASYLUM.

NATIONALITY OF PATIENTS.

Class.	Number treated.		Americans.		Others.	
	White.	Black.	White.	Black.	White.	Black.
Panma Canal employees.....		4				4
Pay cases.....	2	38			2	38
Charity cases.....	2	21			2	21
Total.....	4	63			4	63

Cost of subsistence, per patient, per day, \$0.26.

TABLE XVI.—SANTO TOMAS HOSPITAL.

	Remain- ing July 1.	Admit- ted.	Dis- charged.	Died.	Remain- ing July 31.
Pay cases.....	14	64	33	1	44
Charity cases.....	429	832	736	93	432
Total.....	443	896	769	94	476

Average number of patients constantly sick.....	455
Total numbers of days' treatment.....	14,134
Average number of days' treatment for each patient.....	10

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Black.	White.	Black.
Pay cases.....	78	2	.....	25	51
Charity cases.....	1,261	11	.....	103	1,147
Total.....	1,339	13	.....	128	1,198

DISPENSARY REPORT.

Class.	White.	Black.	Total.
Natives.....	48	632	680
Foreigners.....	71	335	406
Total.....	119	967	1,086

DISEASES TREATED.

Typhoid fever.....	5
Malaria.....	57
Measles.....	4
Diphtheria and croup.....	1
Influenza.....	9
Dysentery.....	8
Leprosy.....	1
Other epidemic diseases.....	4
Purulent infection and septicemia.....	9
Pellegra.....	5
Beriberi.....	1
Tuberculosis of the lungs.....	19
Syphilis.....	36
Soft chancre.....	8
Gonococcus infection.....	31
Cancer and other malignant tumors of the buccal cavity.....	1
Cancer and other malignant tumors of the female genital organs.....	1
Cancer and other malignant tumors of the organs not specified.....	2

TABLE XVI.—SANTO TOMAS HOSPITAL—Continued.

DISEASES TREATED—Continued.

Other tumors.....	1
Alcoholism, acute or chronic.....	9
Locomotor ataxia.....	2
Other forms of mental alienations.....	9
Epilepsy.....	1
Hysteria.....	5
Other diseases of the nervous system.....	5
Other diseases of the eyes and their annexa.....	8
Diseases of the ear.....	1
Organic diseases of the heart.....	8
Diseases of the arteries.....	9
Diseases of the veins.....	4
Diseases of the lymphatic system.....	7
Diseases of the nasal fossæ.....	2
Chronic bronchitis.....	17
Broncho-pneumonia.....	2
Pneumonia.....	2
Pleurisy.....	3
Asthma.....	1
Diseases of the teeth and gums.....	2
Diseases of the pharynx.....	15
Other diseases of the stomach.....	3
Diarrhea and enteritis under 2 years.....	6
Diarrhea and enteritis 2 years and over.....	10
Ankylostomiasis.....	60
Appendicitis and typhlitis.....	6
Hernias, intestinal obstructions.....	10
Diseases of the anus and fecal fistula.....	2
Other diseases of the intestines.....	2
Biliary calculi.....	1
Bright's disease.....	11
Other diseases of the kidneys and annexa.....	1
Diseases of the bladder.....	2
Diseases of the urethra.....	9
Nonvenereal diseases of the male genital organs.....	4
Uterine tumor, noncancerous.....	2
Metritis.....	8
Other diseases of the uterus.....	2
Salpingitis and other diseases of the female genital organs.....	9
Nonpuerperal diseases of the breast.....	4
Normal labor.....	71
Accidents of pregnancy.....	28
Gangrene.....	1
Furuncle.....	1
Acute abscess.....	12
Other diseases of the skin and annexa.....	32
Diseases of the bones.....	2
Diseases of the joints.....	10
Other diseases of the organs of locomotion.....	3
Congenital malformations.....	5
Nursling discharge from hospital without disease.....	69
Other acute poisonings.....	3
Burns.....	3
Traumatism by firearms.....	24
Traumatism by cutting or piercing instrument.....	1
Fractures.....	8
Other external violence.....	15
Diseases not specified or ill defined.....	1
No disease.....	12
Total.....	768

TABLE XVI.—SANTO TOMAS HOSPITAL—Continued.

SURGICAL OPERATIONS.

	Number.	Died.
Amputation of arm.....	1	.....
Amputation of digits, multiple.....	3	.....
Craniectomy, decompressive.....	1	.....
Ostectomy.....	1	.....
Excision of maxilla.....	2	.....
Union by nail.....	1	.....
Adenectomy, cervical.....	1	.....
Adenectomy, inguinal, single.....	1	.....
Adenectomy, inguinal, double.....	3	.....
Herniotomy, inguinal, single.....	9	.....
Herniotomy, inguinal, double.....	3	.....
Herniotomy, strangulated.....	1	1
Urethrotomy, internal.....	4	1
Urethrotomy, external.....	2	2
Hydrocele, single, radical cure.....	2	.....
Curetage, uteri.....	7	.....
Perineoplasty.....	1	.....
Excision of breast and axilla.....	1	.....
Hemorrhoids, radical cure.....	4	.....
Fistula in anus, excision of.....	2	.....
Gunshot wound of soft parts, operation for.....	1	.....
Plastic operation for effects of disease.....	27	1
Skin graft.....	12	.....
Laparotomy, for general peritonitis.....	1	1
Laparotomy, for tuberculous peritonitis.....	1	1
Appendectomy.....	6	.....
Appendectomy with local peritonitis.....	2	.....
Abscess of liver, paparo-hepatotomy.....	1	1
Pan-hysterectomy.....	1	.....
Supravaginal hysterectomy.....	2	.....
Salpingo-oophorectomy.....	6	.....
Suspensio-uteri.....	1	.....
For ectopic gestation.....	2	.....
Minor operations, various.....	36	1
Tonsillectomy.....	7	.....
Mastoidectomy.....	1	.....
Enucleation eye.....	1	.....
Needling of eye.....	1	.....
Pterygium.....	1	.....
Total.....	160	9

TABLE XVII.—SUMMARY OF SANITARY WORK PERFORMED AND MATERIAL EXPENDED IN THE CANAL ZONE.

Work requests, supply department:	
Grass cutting.....	31
Screening.....	12
Miscellaneous.....	7
Work requests, municipal engineering department.....	20
Work requests, other departments.....	1
Notices served to abate nuisances.....	1
Arrests and convictions.....	1
Closets, inspection of.....	686
Stores, inspection of.....	26
Shops, inspection of.....	16
Garbage cans emptied.....	2,878
Closets disinfected.....	744
Rat traps in use.....	400
Rats destroyed.....	398

TABLE XVII.—SUMMARY OF SANITARY WORK PERFORMED AND MATERIAL EXPENDED IN THE CANAL ZONE—Continued.

Adult anopheles caught.....	5,149
Adult culices caught.....	23,629
Stegomyia destroyed.....	31
Larvacide used.....gallons.....	548
Crude oil used.....do.....	15,047
Kerosene used.....do.....	869

SUMMARY OF ROUTINE WORK DONE BY PANAMA HEALTH OFFICE.

General sanitation:	
Linear feet of ditches cleaned and maintained.....	18,960
Linear feet of new ditches dug.....	675
Gallons of larvacide used.....	600
Gallons of crude oil used.....	4,673
Square yards of pools oiled.....	355,870
Water containers treated.....	16,377
Mosquito-breeding places found (Stegomyia, 108).....	311
Fly-breeding places found.....	51
Flies trapped (13,000 per quart).....quarts.....	114
Number of rats killed.....	1,324
Number of room disinfections.....	13
Square feet of vegetation removed.....	345,700
Garbage collection:	
Number of loads of garbage removed to dump.....	5,329
Number of cubic yards of garbage removed to dump.....	9,236
Total number of cans garbage emptied.....	42,443
Buildings:	
Number of buildings inspected.....	4,573
Number of plans for new buildings approved.....	23
Number of permits issued for repairs to old buildings.....	95
Total number of building permits issued.....	118
Number of buildings condemned.....	18
Number of stables condemned.....	1
Number of buildings demolished.....	6
Street cleaning:	
Average number of square yards of streets cleaned daily.....	600,000
Average number of square yards of streets sprinkled daily.....	45,000
Number of private properties cleaned during month.....	1
Number of notices served and nuisances abated.....	366
Vaccination:	
Number of vaccinations performed during month.....	295
Total number of vaccinations since Apr. 1, 1914.....	23,539

WORK REPORT FOR COLON AND CRISTOBAL AND MOUNT HOPE.

Sanitation, Colon and Cristobal:	
Square yards street cleaned.....	3,895,800
Square yards alleys maintained.....	655,000
Number of private properties cleaned.....	772
Doses of quinine issued.....	7,555
Number of rats caught.....	150
Number of dogs caught.....	39
Number of dogs killed.....	22
Loads of yard garbage disposed of.....	604
Number of cans garbage (cubic yards, 2,389).....	67,072
Linear yards ditches maintained.....	110
Acres of vegetation removed:	
Panama Railroad properties.....	34
Washington Hotel.....	14
Panama Railroad Reservation, Colon.....	6
Square yards oiled.....	70,525
Number of receptacles treated.....	40,495
Number of mosquitoes caught on Colon Hospital screens:	
Anopheles.....	129
Culex.....	1,119

TABLE XVII.—SUMMARY OF SANITARY WORK PERFORMED AND MATERIAL EXPENDED IN THE CANAL ZONE—Continued.

WORK REPORT FOR COLON AND CRISTOBAL AND MOUNT HOPE—Continued.

Sanitation, Colon and Cristobal—Continued.

Number of mosquito-breeding places destroyed.....	5
Number of fly-breeding places destroyed.....	2
Number of buildings inspected.....	10,815
Gallons of larvacide used in Colon.....	176.06
Gallons of crude oil used in Colon.....	560
Number of nuisances abated.....	379
Building, Colon:	
Number of building plans approved.....	10
Number of permits to occupy issued.....	16
Number of permits to repair issued.....	44
Number of bills collected.....	146
Sewers, Colon:	
Number of new connections made during the month.....	7
Total number of connections made to date.....	1,331
Number of houses in which connections were made.....	6
Outstanding permits.....	48
Sanitation, Cristobal:	
Number of cans garbage (cubic yards, 745).....	14,176
Loads of yard garbage handled.....	194
Number of receptacles treated.....	11,925
Square yards oiled.....	10,900
Number of mosquito-breeding places destroyed.....	9
Number of fly-breeding places destroyed.....	4
Gallons of larvacide used.....	21
Gallons of crude oil used.....	360
Number of buildings inspected.....	1,795
Number of nuisances abated.....	52
Sanitation, Mount Hope:	
Number of cans garbage (cubic yards, 137).....	1,164
Square yards oiled.....	232,000
Number of receptacles treated.....	17,850
Number of mosquitoes caught in barracks—	
Anopheles.....	491
Culex.....	1,455
Number of mosquitoes caught in cars, in swamps, and Camp B—	
Anopheles.....	934
Culex.....	306
Number of mosquitoes caught in silver married quarters—	
Anopheles.....	78
Culex.....	2,002
Number of mosquitoes caught in steamships—	
Anopheles.....	131
Culex.....	51
Number of mosquitoes caught in Mount Hope village—	
Anopheles.....	1,408
Culex.....	448
Total anopheles.....	3,042
Total culex.....	4,262
Gallons of larvacide used.....	100
Gallons of crude oil used.....	3,771.72
Mount Hope Cemetery maintained.....	
Linear yards of ditches constructed, Mindi Island.....	4,981
Linear yards of ditches constructed, Mount Hope.....	1,889
Linear yards of ditches maintained.....	6,591
Square yards of vegetation removed.....	296,735
Number of burials during the month.....	47
Number of mosquito-breeding places destroyed.....	170

TABLE XVIII.—CONSOLIDATED REPORT OF QUARANTINE TRANSACTIONS AT THE PORTS OF BALBOA-PANAMA AND COLON-CRISTOBAL.

Number of vessels inspected and passed.....	220
Number of vessels held in quarantine.....	16
Total number of vessels entered.....	236
Number of special inspections made to enforce compliance with antiplague and mosquito-breeding regulations.....	109
Number of vessels fumigated on arrival.....	18
Number of vessels fumigated on departure.....	4
Number of vessels detained, but sailed in quarantine.....	6
Number of stowaways inspected.....	10
Number of crew examined.....	12,573
Number of passengers examined.....	4,030
	16,613
Number of supplementary inspections.....	2,210
Number of persons vaccinated at port of arrival because of compulsory vaccination law.....	420
Number of persons vaccinated at port of departure or en route because of compulsory vaccination law.....	1,255
	1,675
Number of persons held in quarantine at the detention houses to complete period of incubation of yellow fever or plague.....	298
Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.....	1,921
	2,219
Total number of persons landed from foreign ports:	
Cabin.....	1,661
Steerage.....	1,617
	3,278
Total number of persons embarked for foreign ports:	
Cabin.....	1,844
Steerage.....	1,805
	3,649
Total number of persons arriving from coast towns on small launches and sailing craft.....	1,665
Total number of persons sailing for coast towns on small launches and sailing craft.....	1,233
Apparent increase for month from coast towns.....	432
Apparent decrease for month from foreign ports:	
Cabin.....	183
Steerage.....	183
	371
Number of persons rejected and deported.....	25
Number of bills of health issued or viséed.....	212
Number of inspections of docks.....	4
Number of inspections of vessels at docks.....	17

TABLE XVIII.—CONSOLIDATED REPORT OF QUARANTINE TRANSACTIONS AT THE PORTS OF BALBOA-PANAMA AND COLON-CRISTOBAL—Continued.

Total number of persons landed.....	4,943	
Less number for Pacific ports.....	269	
		4,674
Total number of persons sailing.....		4,882
Total apparent decrease for month.....		208

IMMIGRATION REPORT FOR COLON AND CRISTOBAL.

From—	Cabin.	Steerage.
Europe.....	5	2
United States.....	602	15
Jamaica and West Indies.....	83	371
Venezuela.....	23	2
Colombia.....	76	84
Cuba.....	26	18
Costa Rica.....	92	70
Bocas del Toro.....	44	165
Coast towns.....		130
Total.....	951	857

Grand total.....	1,808
Men.....	850
Women.....	552
Children.....	276
Unclassified.....	130
	1,808

QUARANTINE TRANSACTIONS AT THE PORT OF Bocas del Toro.

Number of vessels inspected and passed.....	18
Number of crew inspected and passed.....	1,336
Number of passengers inspected and passed.....	232
Number of passengers, transit, inspected and passed.....	86

No quarantinable disease has appeared in this port, and the health conditions of the port and surrounding territory are good.

TABLE XIX.—STATEMENT OF QUININE ISSUED.

Quinine sulphate:	
Kilos.....	23.17
Pounds avoirdupois.....	50.97

TABLE XX.—PERSONNEL REPORT.

	July, 1916.			June, 1916.	July, 1915.
	Gold employ- ees.	Silver employ- ees.	Total employ- ees.	Total employ- ees.	Total employ- ees.
Chief health office.....	5	.....	5	4	4
Medical storehouse.....	4	4	8	8	10
Quarantine division.....	12	34	46	45	42
Health office, Panama.....	11	153	164	155	160
Health office, Colon-Mount Hope.....	9	185	194	181	159
Ancon Hospital.....	118	253	371	359	341
Colon Hospital.....	15	26	41	40	34
Santo Tomas Hospital.....	6	.....	6	6	5
Palo Seco Leper Asylum.....	2	34	36	19	32
Zone sanitation.....	7	128	135	139	113
Hospital farm, Corozal.....	2	56	58	59	50
Dispensaries:					
Balboa.....	5	2	7	7	6
Corozal.....	.....	.....	.....	.....	4
Gamboa.....	1	.....	1	1	1
Gatun.....	2	2	4	4	4
Naos Island.....	1
Paraiso.....	2	2	4	4	4
Pedro Miguel.....	3	1	4	3	3
	204	880	1,084	1,034	973



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